AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) An integrated digital television (DTV) diagnostic instrument comprising:

a video display device (VDD); and

a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of types or specific contents of a plurality of individual packets representing said stream.

2. (Original) The instrument of claim 1, wherein said controller is embodied by a processor running software.

3. (Currently Amended) The instrument of claim 1, further comprising:

DTV circuitry (AV) to receive a DTV signal and to reconstruct said stream of packets representing said DTV signal;

wherein said controller receives said stream of packets from said DTV circuitry.

4. (Original) The instrument of claim 3, further comprising an antenna to receive a broadcast of said DTV signal, wherein said DTV circuitry is connected to receive said DTV signal from said antenna.

5. (Currently Amended) The instrument of claim 3, further comprising:

recording circuitry ~~(R)~~ to record said stream of packets from said DTV circuitry;

wherein said controller is operable to generate said graphical depiction based upon the recorded stream of packets.

6. (Currently Amended) <u>An integrated digital television (DTV) diagnostic instrument comprising:</u>

<u>a video display device (VDD);</u>

<u>a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream; and</u>

<u>DTV circuitry to receive a DTV signal and to reconstruct said stream of packets representing said DTV signal;</u>

<u>wherein said controller receives said stream of packets from said DTV circuitry, and</u>

~~The instrument of claim 3,~~ wherein said controller is operable to drill down into the contents of individual ones of said stream of packets and to generate a display of such contents.

7. (Original) The instrument of claim 1, wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet.

8. (Original) The instrument of claim 7, wherein each geometric shape is a square.

9. (Currently Amended) <u>An integrated digital television (DTV) diagnostic instrument comprising:</u>

<u>a video display device (VDD); and</u>

a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

~~The instrument of claim 7,~~ wherein each geometric shape has an appearance that is indicative of what type the corresponding packet is.

10. (Original) The instrument of claim 9, wherein colors are assigned to said geometric shapes to denote the types of the corresponding packets, respectively.

11. (Original) The instrument of claim 10, wherein said controller is operable to generate a graphical depiction on said VDD of a legend explaining color and packet type relations.

12. (Original) The instrument of claim 11, wherein each color in said legend is depicted in the form of said geometric shape, and each geometric shape is operable as a pointing-device-clickable button; and

wherein said controller is operable, in response to a user clicking on one of said geometric shapes, to present an interface by which the color assigned to the geometric shape can be changed by said user.

13. (Original) The instrument of claim 10, wherein said stream of packets representing said DTV signal contains multiple video programs, and wherein different shades of a color representing a type of packet are assigned to denote which one of said multiple video programs corresponds to the geometric shape.

14. (Original) The instrument of claim 10, wherein said controller adheres to at least one of the following color definitions:

a green geometric shape corresponds to a video packet;

a cyan geometric shape corresponds to an audio packet;

a black geometric shape corresponds to a null packet;

a yellow geometric shape corresponds to a data packet;

a pink shape corresponds to a program and system information protocol (PSIP) packet;

a gray geometric shape corresponds to an unknown type of packet;

a white geometric shape corresponds to a PAT packet; and

an orange geometric shape corresponds to one of a PMT packet, an NIT packet or a CAT packet.

15. (Original) The instrument of claim 9, wherein a plurality of geometric patterns is superimposed on predetermined ones, respectively, of said geometric shapes to denote qualities of the corresponding packets, respectively.

16. (Original) The instrument of claim 15, wherein said controller adheres to at least one of the following geometric pattern definitions:

a geometric shape for which half is black denoting that the corresponding packet has PCR;

a geometric shape having a superimposed vertical line denoting that the corresponding packet is the start of a payload;

a geometric shape having a superimposed horizontal line denoting that the corresponding packet is a packet with adaptation;

a geometric shape having superimposed diagonal intersecting lines denoting that the corresponding packet has a transport error and

a geometric shape for which half is pink denoting that the corresponding packet has a packet adaptation data error.

17. (Original) The instrument of claim 7, wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button.

18. (Original) The instrument of claim 17, wherein said controller is operable, in response to a user clicking on one of said geometric shapes, to display contents of the corresponding packet on said VDD.

19. (Original) The instrument of claim 7, wherein said controller is operable to depict a break in said matrix where previously displayed geometric shapes are replaced with new geometric shapes in order to represent the streaming nature of said DTV signal.

20. (Original) The instrument of claim 19, wherein said break takes the form of a blank row in said matrix.

21. (Original) The instrument of claim 20, wherein said controller is operable to move said blank row through said matrix.

22. (Original) The instrument of claim 7, wherein a packet map display sub-area forms a part of a total display area on said VDD, said packet map display sub-area being smaller than is needed to display an entire stream of packets; and
wherein said controller is operable to enable a user to scroll the portion of said matrix depicted in said packet map display sub-area.

23. (Currently Amended) In an integrated digital television (DTV) diagnostic instrument having a video display device (VDD), a method of

generating graphical depictions on said VDD of a stream of packets representing a DTV signal, the method comprising:

providing a DTV signal in the form of a stream of packets; and

generating a graphical depiction on said VDD of types or specific contents of a plurality of individual packets representing said stream.

24. (Original) The method of claim 23, wherein the stream is provided by retrieving a recorded portion of a DTV signal from memory.

25. (Original) The method of claim 23, wherein the stream is provided by receiving a broadcast of a DTV signal.

26. (Original) The method of claim 23, wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet.

27. (Currently Amended) The method of claim 26 23, wherein colors are assigned to said geometric shapes to denote the types of the corresponding packets, respectively.

28. (Original) The method of claim 23, wherein said controller is operable to generate a graphical depiction on said VDD of a legend explaining color and packet type relations.

29. (Currently Amended) The method of claim 26 23, wherein a plurality of geometric patterns is superimposed on predetermined ones, respectively, of said geometric shapes to denote qualities of the corresponding packets, respectively.

30. (Currently Amended) The method of claim 26 23, wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button; and

wherein, in response to a user clicking on one of said geometric shapes, contents of the corresponding packet are displayed on said VDD.

31. (Currently Amended) The method of claim 26 23, wherein a break in said matrix is depicted at a location where previously displayed geometric shapes are replaced with new geometric shapes in order to represent the streaming nature of said DTV signal;

wherein said break takes the form of a blank row in said matrix; and

wherein said blank row is moved through said matrix.

32. (Currently Amended) A computer-readable article of manufacture having embodied thereon software comprising a plurality of code segments to generate graphical depictions on a video display device (VDD) of a stream of packets representing a DTV signal, the computer-readable code segments comprising:

a first segment to receive a DTV signal in the form of a stream of packets; and

a second code segment to generate a graphical depiction on said VDD of types or specific contents of a plurality of individual packets representing said stream.

33. (Original) The computer-readable code segments of claim 32, wherein said second segment is operable to receive said stream of packets from DTV circuitry that receives a DTV signal from an antenna and reconstructs said stream therefrom.

34. (Original) The computer-readable code segments of claim 32, wherein said second segment is operable to generate said graphical depiction based upon a recorded stream of packets.

35. (Original) The computer-readable code segments of claim 32, wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet.

36. (Currently Amended) The computer-readable code segments of claim 35 32, wherein colors are assigned to said geometric shapes to denote the types of the corresponding packets, respectively.

37. (Original) The computer-readable code segments of claim 32, wherein said second segment is operable to also generate a graphical depiction on said VDD of a legend explaining color and packet type relations.

38. (Currently Amended) The computer-readable code segments of claim 35 32, wherein a plurality of geometric patterns is superimposed on predetermined ones, respectively, of said geometric shapes to denote qualities of the corresponding packets, respectively.

39. (Currently Amended) The computer-readable code segments of claim 35 32, wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button; and

wherein said second segment is operable, in response to a user clicking on one of said geometric shapes, to display contents of the corresponding packet on said VDD.

40. (Currently Amended) The computer-readable code segments of claim 35 32, wherein said second code segment is operable to depict a break in said matrix where previously displayed geometric shapes are replaced with new geometric shapes in order to represent the streaming nature of said DTV signal;

wherein said break takes the form of a blank row in said matrix; and

wherein said second code segment is operable to move said blank row through said matrix.

41. (New) An integrated digital television (DTV) diagnostic instrument comprising:

a video display device (VDD); and

a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button.

42. (New) An integrated digital television (DTV) diagnostic instrument comprising:

a video display device (VDD); and

a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein said controller is operable to depict a break in said matrix where previously displayed geometric shapes are replaced with new geometric shapes in order to represent the streaming nature of said DTV signal.

43. (New) An integrated digital television (DTV) diagnostic instrument comprising:

a video display device (VDD); and

a controller to receive a DTV signal in the form of a stream of packets and to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet,

wherein a packet map display sub-area forms a part of a total display area on said VDD, said packet map display sub-area being smaller than is needed to display an entire stream of packets, and

wherein said controller is operable to enable a user to scroll the portion of said matrix depicted in said packet map display sub-area.

44. (New) In an integrated digital television (DTV) diagnostic instrument having a video display device (VDD), a method of generating graphical depictions on said VDD of a stream of packets representing a DTV signal, the method comprising:

providing a DTV signal in the form of a stream of packets; and

generating a graphical depiction on said VDD of a plurality of individual packets representing said stream, and

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein colors are assigned to said geometric shapes to denote the types of the corresponding packets, respectively.

45. (New) In an integrated digital television (DTV) diagnostic instrument having a video display device (VDD), a method of generating graphical depictions on said VDD of a stream of packets representing a DTV signal, the method comprising:

providing a DTV signal in the form of a stream of packets; and

generating a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said controller is operable to generate a graphical depiction on said VDD of a legend explaining color and packet type relations.

46. (New) In an integrated digital television (DTV) diagnostic instrument having a video display device (VDD), a method of generating graphical depictions on said VDD of a stream of packets representing a DTV signal, the method comprising:

providing a DTV signal in the form of a stream of packets; and

generating a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button.

47. (New) A computer-readable article of manufacture having embodied thereon software comprising a plurality of code segments to generate graphical depictions on a video display device (VDD) of a stream of packets representing a DTV signal, the computer-readable code segments comprising:

a first segment to receive a DTV signal in the form of a stream of packets; and

a second code segment to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein colors are assigned to said geometric shapes to denote the types of the corresponding packets, respectively

48. (New) A computer-readable article of manufacture having embodied thereon software comprising a plurality of code segments to generate graphical depictions on a video display device (VDD) of a stream of packets representing a DTV signal, the computer-readable code segments comprising:

a first segment to receive a DTV signal in the form of a stream of packets; and

a second code segment to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said second segment is operable to also generate a graphical depiction on said VDD of a legend explaining color and packet type relations.

49. (New) A computer-readable article of manufacture having embodied thereon software comprising a plurality of code segments to generate graphical

depictions on a video display device (VDD) of a stream of packets representing a DTV signal, the computer-readable code segments comprising:

a first segment to receive a DTV signal in the form of a stream of packets; and

a second code segment to generate a graphical depiction on said VDD of a plurality of individual packets representing said stream,

wherein said graphical depiction on said VDD of said stream of packets takes the form of a matrix of geometric shapes, each geometric shape representing a packet, and

wherein each geometric shape in said matrix thereof is operable as a pointing-device-clickable button.